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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,560	11/12/2003	Jong-Seong Lee	678-1281 (P11395)	6913
28249	7590	08/09/2006	EXAMINER	
DILWORTH & BARRESE, LLP 333 EARLE OVINGTON BLVD. UNIONDALE, NY 11553			NGUYEN, DUC M	
			ART UNIT	PAPER NUMBER
			2618	

DATE MAILED: 08/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/706,560	<b>Applicant(s)</b> LEE ET AL.	
	<b>Examiner</b> Duc M. Nguyen	<b>Art Unit</b> 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 1-10, 16-22 is/are allowed.
- 6) ☒ Claim(s) 11-13 is/are rejected.
- 7) ☒ Claim(s) 14 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

This action is in response to applicant's response filed on 6/13/06. Claims 1-22 are now pending in the present application.

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims **11-13** are rejected under 35 U.S.C. 103(a) as being unpatentable by **Haberkern et al** (US 4,633,323) in view of **Akai** (2004/0204194) and **House** (US 6,991,289).

Regarding claim **11**, **Haberkern** discloses a portable terminal comprising:

- a phone body (see col. 1, lines 26-32 and col. 2, lines 23-26), which would obviously disclose a plurality of key and a microphone when incorporating a telephone function as suggested by Haberkern;
- a folder with a main LCD disposed on the inner surface (see Fig. 2A);
- a pair of speakers as claimed (see Figs. 2a, 2b and col. 2, lines 35 –37).

Here, although **Haberkern** fails to disclose a speaker for the folder, it is noted that when modify the portable terminal to incorporate a telephone function as suggested by **Haberkern**, one skilled in the art would recognize the need of mounting a speaker on

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the folder in order to conduct a conversation phone call in private mode as disclosed by **Akai** (see Fig. 1(2) regarding speaker 201). Further, although **Haberkern** fails to disclose a speaker cover, one skilled in the art would recognize the need of providing a cover for protecting the speakers. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to utilize **Haberkern's** teaching to provide a portable phone terminal as shown in **Akai** with a pair of speakers on the hinge as claimed, so that a user can enjoy stereo sound when listening to music.

However, **Haberkern**, in view of **Akai**, does not disclose a barrier disposed behind the side speakers to prevent sound emitted from the side speakers from interfering with each other. However, it is noted that when utilizing a pair of speakers, a barrier disposed between the two speaker would be needed in order to reduce cross talk between the two speakers, and can be done in many ways as disclosed by **House** (see entire document). Further, it is noted that since the hinge provides a rotatable feature for the folder and the phone body, it is clear that the hinge would need shaft bearings and cylindrical members, these components would obviously be made to act as a barrier as well. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to provide **House's** teaching to **Haberkern** to provide a barrier disposed between the side speakers (i.e, by utilizing cylindrical members or shaft bearings) that would reduce cross talk between the two speakers, thereby prevent sound emitted from the side speakers from interfering with each other as claimed, for improving sound quality to the user.

Regarding claims **12-13**, the claims are rejected for the same reason as set forth in claim 11 above. In addition, by providing shaft bearings and cylindrical members to the hinge as a barrier, these bearings, cylindrical members and/or barriers would read on "partitions" as claimed with the broadest reasonable interpretation.

### ***Allowable Subject Matter***

3. Claims 1-10, 16-22 are allowed.
4. Claims 14-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**Yoshida** et al (US 2004/0248625) discloses a mobile telephone with a side speaker.

**Kawamoto** (US 6,952,860) discloses a hinge structure incorporated with a rotary actuator.

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7. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

(571) 273-8300 (for **formal** communications intended for entry)

(571)-273-7893 (for informal or **draft** communications).

Hand-delivered responses should be brought to Customer Service Window,  
Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

Any inquiry concerning this communication or communications from the examiner  
should be directed to Duc M. Nguyen whose telephone number is (571) 272-7893,  
Monday-Thursday (9:00 AM - 5:00 PM).

Or to Matthew Anderson (Supervisor) whose telephone number is (571) 272-  
4177.

Duc M. Nguyen, P.E.

August 3, 2006

